REMARKS

Claims 30-63 are pending in the instant application. Claims 30-63 stand rejected for reasons of record. Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have canceled claims 30-36 and 60-63. Claims 41, 50, 54 and 58 have been amended in light of the cancellation of claim 30 to be independent. No new matter is added by this amendment. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Rejection of Claims 30-34 under 35 U.S.C. 102(b)

The cancellation of claims 30-34 renders moot the rejection of claims 30-34 under 35 U.S.C. 102(b) as being anticipated by Malovrh et al. (Comparative Biochemistry and Physiology, Part C, 1999, p.221-226).

Withdrawal of this rejection is respectfully requested.

II. Rejection of Claims 30-49 and 60-63 under 35 U.S.C. 103(a)

Claims 30-40 and 60-63 were rejected under 35 U.S.C. 103(a) as being unpatentable over Malovrh et al.

(Comparative Biochemistry and Physiology, Part C, 1999, p.221-226). Claims 41-49 were also rejected under 35 U.S.C. 103(a) as being unpatentable over Woude et al. (PNAS 1997 Vol. 94, p. 1160-1165) in view of Malovrh et al. (Comparative Biochemistry and Physiology, Part C, 1999, p.221-226).

Applicants respectfully traverse these rejections.

Claims 30-36 and claims 60-63 have been canceled thus mooting the rejections as they pertain to these claims.

Pending claims 37-40 are drawn to a method for the reversible formation of membrane pores, the method comprising the steps of: a) incubating the membrane in the presence of a composition comprising a reversible pore-forming sponge toxin comprising at least one polymeric 1,3-alkylpyridinium salt (poly-APS); and b) removing the composition from contact with the membrane. Pending claims 41-49 are drawn to a method for transfection of a macromolecule into a cell *in vitro*, the method comprising the steps of: a) incubating the cell in the presence of a composition comprising a reversible pore-forming sponge toxin comprising at least one polymeric 1,3-alkylpyridinium salt (poly-APS); b) removing the composition from contact

with the cell; and c) adding a macromolecule.

In the Advisory Action mailed January 27, 2009, the Examiner acknowledged that Malovrh et al. do not disclose the composition for reversible pore formation.

Accordingly, Malovrh provides no reasonable expectation of success with respect to claims 37-40 drawn to a method for the reversible formation of membrane pores and therefore cannot render obvious these claims. See MPEP 2143.02.

The cited combination of Woude et al. (PNAS 1997 Vol. 94, p. 1160-1165) and Malovrh et al. (Comparative Biochemistry and Physiology, Part C, 1999, p.221-226) also fails to provide the requisite reasonable expectation of success with respect to claims 41-49 drawn to drawn to a method for transfection of a macromolecule into a cell *in vitro* comprising incubating the cell in the presence of a composition comprising a reversible pore-forming sponge toxin comprising at least one polymeric 1,3-alkylpyridinium salt (poly-APS).

As discussed supra, the Examiner acknowledged in the January 27, 2009 Advisory Action that Malovrh et al. do not disclose the composition for reversible pore formation.

Woude et al. relates to vesicle-mediated transfection into cells which is entirely different to the reversible pore-forming mechanism of action of the instant invention.

Accordingly, neither Malovrh et al. alone nor Woude et al. in combination with Malovrh provide the requisite reasonable expectation of success to render pending method claims 37-49 obvious.

Withdrawal of these rejections is therefore respectfully requested.

III. Rejection of Claims 50-59 under 35 U.S.C. 103(a)

Claims 50-59 were also rejected under 35 U.S.C. 103(a) as being unpatentable over Woude et al. (PNAS 1997 Vol. 94, p. 1160-1165) and Arendt et al. (Neuroscience, 1998, Vol. 85, No. 4, p. 1337-1340) in view of Ballard C.G. (European Neurology, 2002, Vol. 47, P. 64-70) and further in view of Bunc et al. (Toxicon 2002 Vol. 40, P. 843-849). It is unclear from the Advisory Action whether or not this rejection has been maintained.

Applicants respectfully traverse this rejection.

Pending claim 50 and claims which depend therefrom are drawn to a method for transfection of a macromolecule into

a cell *in vivo* comprising incubating the cell in the presence of a composition comprising a reversible pore-forming sponge toxin comprising at least one polymeric 1,3-alkylpyridinium salt (poly-APS) and a macromolecule. Pending claims 54 and 58 and claims dependent therefrom are drawn to a model and method for use in the study of neurological disease or treatments thereof using a reversible pore-forming sponge toxin comprising at least one polymeric 1,3-alkylpyridinium salt (poly-APS).

None of the cited references teach or suggest reversible pore formation of a sponge toxin as required in claims 50-59.

Instead, Woude et al. discloses vesicle-mediated transfection into cells which is entirely different to the pore-forming mechanism of action of a sponge toxin used in the instant claims.

Bunc et al. discusses the possible lethal effects of poly-APS and concludes that the principle mechanisms of poly-APS lethality are haematological and vascular effects. At no point do Bunc et al. mention neurological disease or use of sponge toxins in a model or method for studying neurological disease. Bunc et al. also provides

no mention of tau protein or phosphatase inhibitor and thus provides absolutely no means or motivation for a person skilled in the art to arrive at the present invention.

References of Arendt et al. and Ballard are unrelated to in vivo transfection methods or sponge toxins.

Accordingly, the cited combination of references clearly fails to provide the requisite reasonable expectation of success under MPEP 2143.02 with respect to the instant claimed methods and model to render obvious the instant claimed methods and model.

Withdrawal of this rejection under 35 U.S.C. 103(a) is therefore respectfully requested.

IV. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record.

Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,

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